Bering Sea / Aleutian Islands Crab Working Group Meeting
13-15 July 2005, Anchorage, AK
Draft Meeting Agenda

Wednesday, 13 July 2005: [1300-1700 hr]

1. Review / Approve Agenda
2. Update on 2005 ESB Survey [NMFS + Industry]

Thursday, 14 July 2005: [0830-1700 hr]

3. Deterministic Results: Red King Crab [Siddeek]
4. Deterministic Results: Opilio, Red King Crab [Turnock]

5. Remaining Model Issues [Input, Structure, Output] to Resolve:
   Apply to both *Chionoecetes* + *Paralithodes sp* unless noted otherwise.
   a. Measure of Effective Spawning Stock Biomass
   b. Formulation of Effective Male Spawning Stock Biomass
   c. Mating Ratio
   d. Applied Mating Ratio
   e. Time-Course of Annual Events
   f. Pre-Molt Female Size in Spawning Stock Biomass
   g. Non-Molting Males in Reproduction [SSB] [RKC]
   h. Survey Selectivity [RKC]
   i. Molting Probability Schedule [RKC]
   j. Old Shell Male in Reproduction [SSB] [CO]

✏ *re:* Stock-Recruitment Relationship [SRR]:
   k. SRR Model Form
   l. Steepness [R/S_{MAX}] of SRR
   m. Changing Productivity Periods
   n. Depensation in SRR

6. Simplifications in Population + Fishery Dynamic Modeling Approaches:
   [Note: Result of each simplification is more *risk prone* outcome in terms of benchmark threshold definitions and measures of stock status.]
   a. Spatial Segregation of Males and Females
   b. Size-Dependent Requirements in Mating
   c. Differential Sex Ratio in Stock Sub-Components
   d. Annual vs Biennial Spawning in Opilio
   e. Biomass as Proxy for Fecundity: Variation in Clutch Fullness

f. Barreness in Mature Females
g. Spawning Aggregation Behavior + Applied Mating Ratio
h. Polygany vs Polyandry + Mating Ratio
i. Complete Egg Fertilization

Friday, 15 July 2005: [0830-1700 hr]

7. Continue Discussion of Item 3
8. Schedule / Planning

Model Scenarios:

1. Red King Crab:
    a. M=0.18
    b. Non-molting males in effective spawning biomass metric
    c. Primiparous and multiparous crab together in effective spawning biomass calculation
    d. Total effective biomass [ETSB] in equilibrium calculations
    e. Selectivity curves examined to insure catches are consistent with observed catches
        i. discard male selectivity curve
        ii. discard female selectivity curve
        iii. trawl bycatch selectivity curve
    f. Mating ratio 1:2 [ratios at F=0 approximate 1:2]
    g. Steepness of stock-recruitment relationship [SRR]: 0.05, 0.1, 0.125, 0.20, 0.25, 0.333, 0.40, 0.50
    h. Beverton and Holt, Ricker, Depensatory SRRs

2. Snow Crab:
    a. M=0.23
    b. Old shell males in effective spawning biomass metric
    c. Primiparous and multiparous crabs together in effective spawning biomass calculation
    d. Total effective spawning biomass [ETSB] in equilibrium calculations
    e. Mating ratio 1:2 [ratios at F=0 approximate 1:2]
    f. Primiparous and multiparous crab together in effective spawning biomass calculation
    g. Steepness of stock-recruitment relationship [SRR]: 0.05, 0.1, 0.125, 0.20, 0.25, 0.333, 0.40, 0.50
    h. Beverton and Holt, Ricker, Depensatory SRRs